

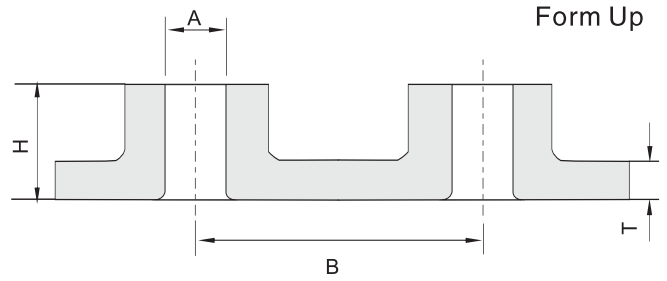


■ FORMING TOOLS

EXTRUSION TAPPING

Prepunch size (Stainless steel) unit: mm [inch]

Extrusion		Thickness: T			
Size	∅A	0.6 [0.02]	0.8 [0.03]	1.0 [0.04]	1.2 [0.05]
M2.6	2.21 [0.09]	1.3 [0.05]	1.3 [0.05]	1.3 [0.05]	
M3	2.60 [0.10]	1.3 [0.05]	1.3 [0.05]	1.6 [0.06]	1.8 [0.07]
M4	3.40 [0.13]		2.0 [0.08]	2.0 [0.08]	2.0 [0.08]
M5	4.30 [0.17]			2.3 [0.09]	2.3 [0.09]
M6	5.10 [0.20]			3.0 [0.12]	3.0 [0.12]



Machine _____ A _____
 Material _____ B _____
 H _____ T _____

- Need prepunch
- Give tool enough time to strip
- Replaceable insert design on extrusion
- Form up & Form down
- Max. thickness

Mild steel 2.3mm [0.09"]

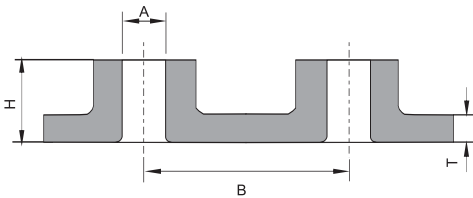
AL 2.0mm [0.08"]

Stainless steel 1.2mm [0.05"]

Prepunch size (Mild steel, Aluminum) unit: mm [inch]

Extrusion		Thickness: T			
Size	∅A	0.6 [0.02]	0.8 [0.03]	1.0 [0.04]	1.2 [0.05]
M2.6	2.21 [0.09]	1.3 [0.05]	1.3 [0.05]	1.3 [0.05]	
M3	2.60 [0.10]	1.3 [0.05]	1.3 [0.05]	1.6 [0.06]	1.8 [0.07]
M4	3.40 [0.13]		2.0 [0.08]	2.0 [0.08]	2.0 [0.08]
M5	4.30 [0.17]			2.3 [0.09]	2.3 [0.09]
M6	5.10 [0.20]			3.0 [0.12]	3.0 [0.12]

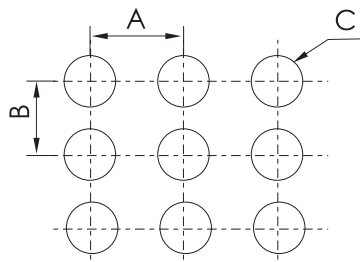
EXTRUSION



Machine _____ A _____
 Material _____ B _____
 H _____ T _____

1. Need prepunch
2. Form up & Form down
3. Max. thickness
 - M.S & AL 2.0mm [0.08"]
 - S.S 1.2mm [0.05"]
4. Forming Height: $H \geq 2T$

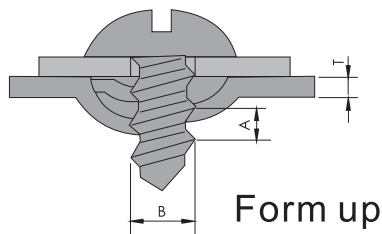




CLUSTER

Machine _____ A _____ C _____
 Material _____ B _____ T _____

- Space of holes must be over 3.2mm [0.125"] or 2 x T

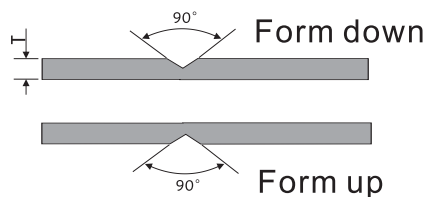


THREAD FORM



- Form up, Form down
- Thickness: 0.5mm~1.2mm [0.02"~0.05"]

Machine _____ A _____ T _____
 Material _____ B _____

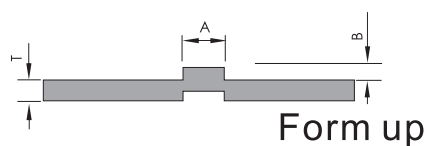


CENTER POINT

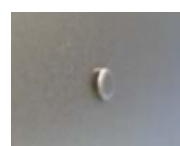


- Forbid punching without sheet
- Adjust the height of the tool to change the depth when punching
- Form up & Form down
- Angle: 90 degree, Max. thickness: 6.0mm [0.236"]

Machine _____ T _____
 Material _____



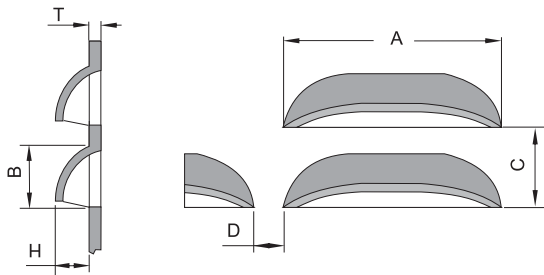
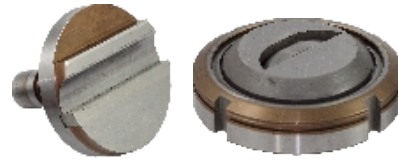
HALF SHEAR



- Form up & Form down
- Max. B size: 0.6 x T

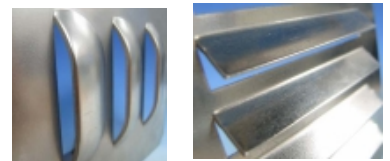
Machine _____ A _____ T _____
 Material _____ B _____

CLOSE LOUVER

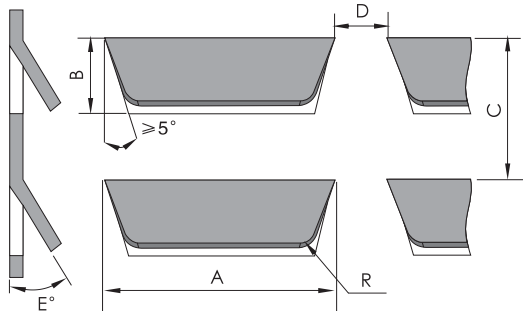


Machine _____ A _____ D _____
 Material _____ B _____ H _____
 C _____ T _____

1. Tooling is made for specific sheet metal thickness
2. Give tool enough time to strip
3. Adjust length without shim, replaceable insert
4. Form up only



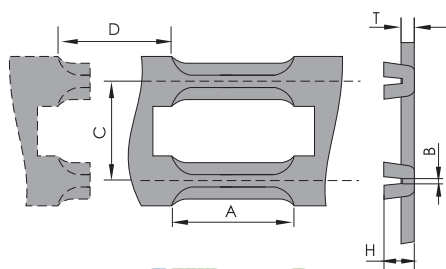
OPEN LOUVER



Machine _____ A _____ D _____
 Material _____ B _____ E _____
 C _____ T _____ R _____

1. Tooling is made for specific sheet metal thickness
2. Give tool enough time to strip
3. Consider the moving direction of the material when programming
4. Adjust length without shim, replaceable insert
5. Form up only

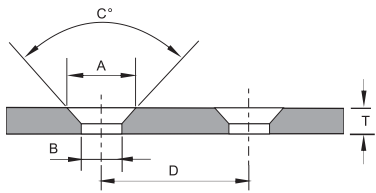
CARD GUIDE



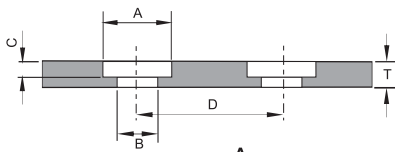
Machine _____ A _____ D _____
 Material _____ B _____ H _____
 C _____ T _____

- Tooling is made for specific thickness
 - Adjust length without shim, replaceable insert
- Forming Height $\leq 2 T$, or will be deformation easily

COUNTERSINK



Machine _____ A _____
 Material _____ B _____ D _____
 C _____ T _____

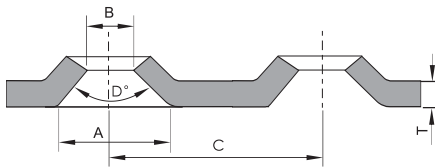


Machine _____ A _____
 Material _____ B _____ D _____
 C _____ T _____



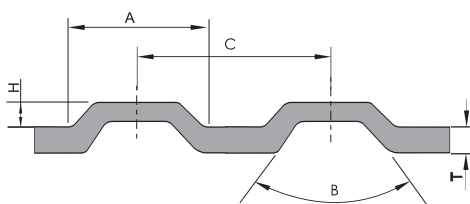
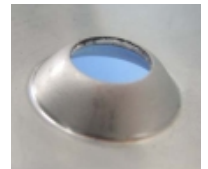
- Need prepunch
- Adjust prepunch size to get different depth
- Form up & Form down
- Min. thickness: $T \geq 1.0\text{mm}$ [0.04"]

EMBOSS COUNTERSINK



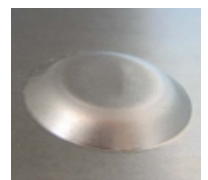
Machine _____ A _____
 Material _____ B _____ D _____
 C _____ T _____

- Suggest using prepunch
- Form up only



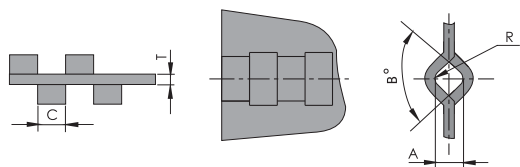
Machine _____ A: _____
 Material _____ B: _____ H: _____
 C: _____ T: _____

- Escape clamp or punching hole
- Can form in Round or Shape
- Form up & Form down



EMBOSS

THREAD LOOP

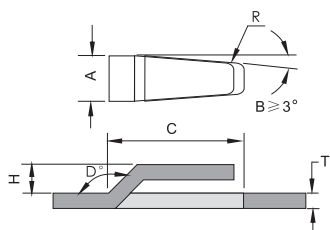


Machine _____
 Material _____
 A _____
 B _____
 C _____
 R _____
 T _____



- Angle B = 90°
- Please fill in the left form

LANCE & FORM

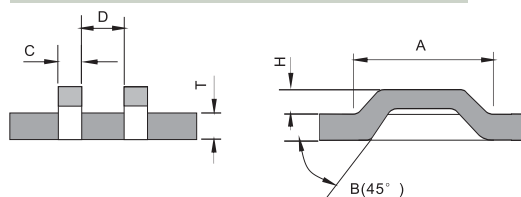


Machine _____
 Material _____
 A _____
 B _____
 C _____
 D _____
 R _____
 H _____
 T _____



- Tooling is made for specific thickness, can not use thicker material, otherwise the tool will be damaged.
- Please fill in the left form

BRIDGE

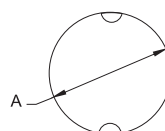


Machine _____
 Material _____
 A _____
 B _____
 C _____
 D _____
 H _____
 T _____



- Can be designed in single or double bridge
- Form up & Form down
- Width of the Bridge $C \geq 2T$ and $C \geq 1.8\text{mm}$ [0.07"]

KNOCKOUT

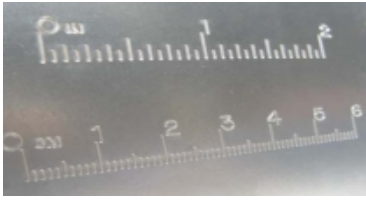


Machine _____
 Material _____
 A _____
 T _____



- For small thickness range only
- Changeable insert for another size, save cost

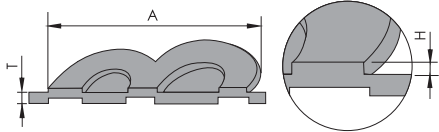
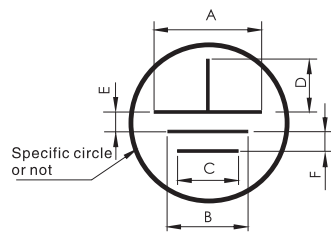
MULTI-SCRIBE



- Forbid punching without sheet
- Required special control program for the machine
- Form down only



STAMPING



Machine _____ A _____ D _____
 Material _____ B _____ E _____ G_(width) _____
 C _____ F _____ H_(depth) _____

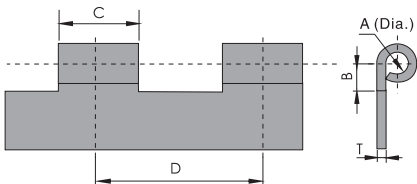
Machine _____ A _____ T _____
 Material _____ H _____

- Form up & Form down
- Please fill in the above form

1. Forbid punching without sheet
2. Adjust the height of the tool to change the depth when punching
3. Form up or Form down
4. Please fill in the above form



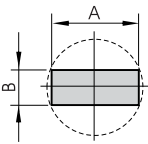
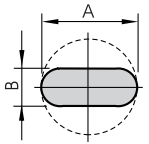
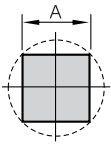
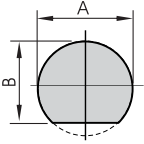
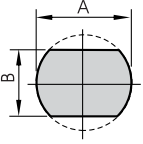
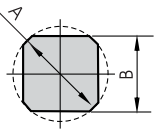
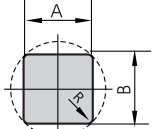
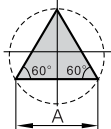
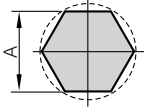
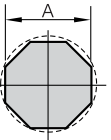
HINGE

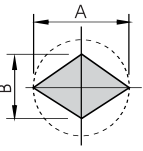
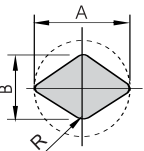
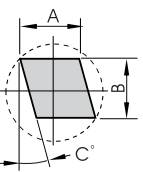
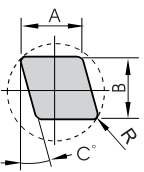
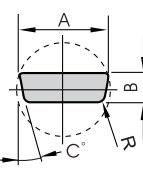
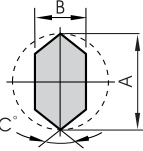
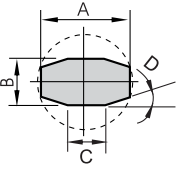
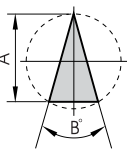
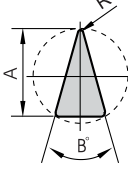
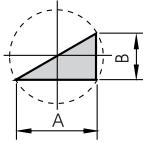


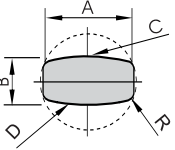
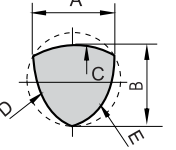
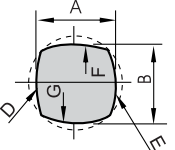
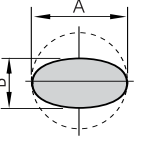
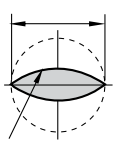
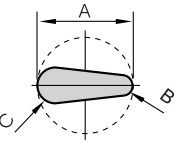
Machine _____ A _____ D _____
 Material _____ B _____ T _____
 C _____

1. Tooling is made for specific sheet metal thickness
2. Need prepunch
3. First for curling, second for forming
4. Form up only
5. Thickness: $T \leq 2.0\text{mm}$ [0.08"] (Mild steel)
 $T \leq 1.5\text{mm}$ [0.06"] (Stainless steel)
6. Please fill in the left form

SHAPE CLASSES

STANDARD SHAPE					
	Code: RE Name: Rectangle Size: B/A	Code: OB Name: Oblong Size: B/A	Code: SQ Name: Square Size: A	Code: SD Name: Single D Size: B/A	Code: DD Name: Double D Size: B/A
					
	Code: QD Name: Quad D Size: B/A	Code: QR Name: Quad R Size: B/A/R	Code: ET Name: Equilateral Triangle Size: A	Code: HX Name: Hexagon Size: A	Code: OT Name: Octagon Size: A

GROUP A					
	Code: A0 Name: Diamond Size: B/A	Code: A1 Name: Diamond Size: B/A/R	Code: A2 Name: Diamond Size: B/A/C	Code: A3 Name: Diamond Size: B/A/C/R	Code: A4 Name: Cable Connector Size: B/A/C/R
					
	Code: A5 Name: Six Edges Size: B/A/C	Code: A6 Name: Eight Edges Size: C/B/A/D	Code: A7 Name: Triangle Size: B/A	Code: A8 Name: Triangle w/R Size: A/B/R	Code: A9 Name: Right Triangle Size: B/A

GROUP B						
	Code: B0 Name: Double R Size: B/A/C/D/R	Code: B1 Name: Tri-R Size: B/A/C/D/E	Code: B2 Name: Quad-R Size: B/A/D/E/F/G	Code: B3 Name: Ellipse Size: B/A/C/R	Code: B4 Name: Football Size: A/B	Code: B5 Name: Key Hole Size: A/B/C

SPECIAL SHAPE	Special shape follows the attached drawing
	CODE: FT

GROUP C

Code: C0 Name: Key Way Size: C/B/A	Code: C1 Name: Double Key Way Size: C/B/A	Code: C2 Name: Quad Key Way Size: C/B/A	Code: C3 Name: Key Way Size: C/B/A	Code: C4 Name: Key Way Size: C/B/A	Code: C5 Name: Key Way Size: C/B/A
Code: C6 Name: Key Way Size: C/B/A/D	Code: C7 Name: Micro-joint Size: B/A				

GROUP D

Code: D0 Name: Triangle w/R Size: A/B/C/R	Code: D1 Name: One way radius Size: B/A/R	Code: D2 Name: Four way radius Size: A/R	Code: D3 Name: Four way radius Size: A/B/C/D/E/F	Code: D4 Name: H w/radius Size: D/C/B/A	Code: D5 Name: H shape Size: D/C/B/A

GROUP E F

Code: E0 Name: Four radius Size: A/B/C/D/E	Code: E1 Name: Banana Size: A/C/D/R	Code: E2 Name: Banana Size: B/C/A	Code: E3 Name: Connector Size: D/B/C/A/R	Code: E4 Name: Connector Size: D/B/A/C/F/R	Code: E5 Name: Connector Size: D/B/C/A/R
Code: E6 Name: Key Hole Size: C/A/B	Code: E7 Name: Key Hole Size: C/A/B	Code: E8 Name: Key Hole Size: C/A/B	Code: F0 Name: Key Hole Size: C/A/B	Code: F1 Name: Key Hole Size: C/A/B	Code: F2 Name: Key Hole Size: C/A/B
Code: F3 Name: Key Hole Size: B/C/A	Code: F4 Name: T shape Size: D/C/B/A	Code: F5 Name: T shape Size: D/C/A/B	Code: F6 Name: Cross Size: C/B/D/A	Code: F7 Name: Cross Size: B/A/D	Code: F8 Name: Cross Size: B/A/C/D/R

MACHINE GROUPS

A	B	C	D	E
CN 700	CN 901E	CN 1200S	TRUMATIC	SUNIMA T400
CN 900	CN 902	CN 1200A	20	TRUMATIC TRUMATIC
CN 701	CS 75	CS 15	20A	150K 202K
CN 901	CS 75.2	CS 20	202M	151K 225K
		CS 20 A		152K 235K
		MP25		180K 300K
		MP25D		180.2K 300LK
				180KD 300PK
				180LK 400K
				180.2LK
F	G	H	I	S
150W	TRUMATIC	TRUMATIC	TRUMATIC	MINIMATIC
152W	20AW	500R	2000R	100
180W	202W	200R	2010R	TRUMATIC
180.2W	30CW	190R	2020R	120R
180R	30CLW	600L	3000-1300R	160R
180LW	30CPW		3000-1600R	
180.2LW	300TOP		5000R	
ELX/SWIFT	400W		6000R	
185			1000R	
240				
240R				
250				
260R				

COATING TECHNOLOGY

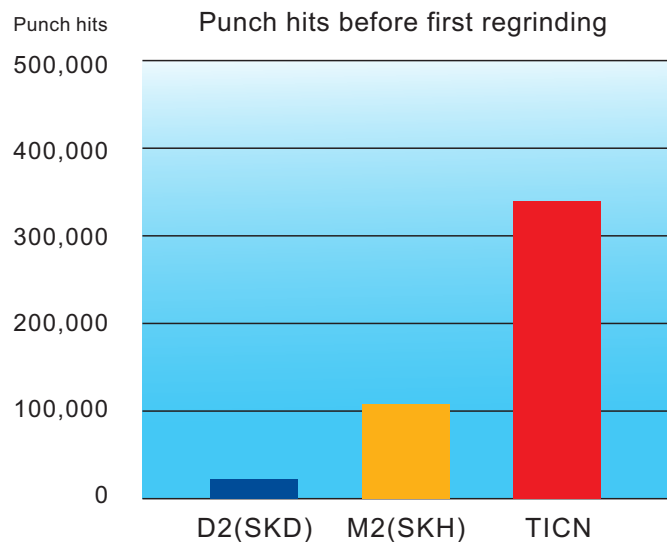
TICN COATING

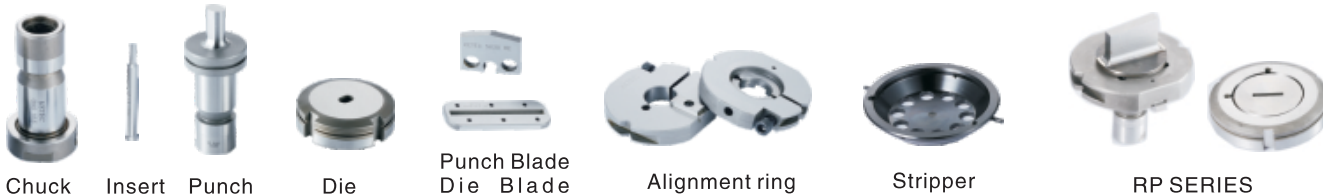
Strongly improve tooling durability



PUNCHING CONDITION

- Good station alignment, qualified for punch tip symmetry, dowel pin size, width of guide slot
- Punch size square 6mm, take out and inspect, check wear on tip
- Sheet metal: stainless steel (SUS304), thickness: 1.5mm
- Punching type: square nibbling, 1.5mm step





RECIPIENT:	SENDER:
COMPANY:	END USER:
DEPT.:	TELEPHONE:
TELEPHONE:	FAX No.:
FAX No.:	PAGES:
SUBJECT:	DATE:

Trumpf Tool <input type="checkbox"/> Sta. style <input type="checkbox"/> Long style <input type="checkbox"/> RP series <input type="checkbox"/> Heavy duty <input type="checkbox"/> Multi-tool								
No.	Station	Description	Size	Shape	Amount	Sheetmetal	Thickness	Remark